Petition of Bay State Gas Company, pursuant to G.L. c. 164 § 69I, for approval by the Department of Telecommunications and Energy of its Long-Range Forecast and Supply Plan for the five-year period November 1, 2002, through October 31, 2007.

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# I. <u>INTRODUCTION AND PROCEDURAL HISTORY</u>

On November 15, 2002, pursuant to G.L. c. 164, § 69I, Bay State Gas Company ("Bay State") or ("Company") filed with the Department of Telecommunications and Energy ("Department") a petition for approval of its Long-Range Forecast and Supply Plan ("Plan") for the period of November 1, 2002 through October 31, 2007. The petition was docketed as D.T.E. 02-75.

Bay State, a subsidiary of NiSource Corporation, is a regulated natural gas distribution utility headquartered in Westborough, Massachusetts. The Company serves approximately 275,000 customers in 60 communities in Massachusetts. Pursuant to notice duly issued, the Department conducted a public hearing and procedural conference in Boston on January 15, 2003. The Attorney General of the Commonwealth ("Attorney General") filed a notice of intervention as a matter of right, pursuant to G.L. c. 12, § 11E. The Department granted intervenor status to the Division of Energy Resources ("DOER").

An evidentiary hearing was held at the Department's offices on May 20, 2003. Bay State presented four witnesses in support of its Plan: Stanley M. Dziura, Jr., a consultant with Bay State; William Gresham, manager of forecasting; Francisco DaFonte, director of energy-supply services; and Joseph A. Ferro, manager of regulatory policy. The evidentiary record consists of the Company's filing, 110 information requests and responses, and 35 record requests and responses. The Company, DOER, and the Attorney General submitted initial briefs, and the Company and DOER submitted reply briefs.

## II. ANALYSIS OF THE LONG-RANGE FORECAST

#### A. Standard of Review

Pursuant to G.L. c. 164, § 69I, the Department is required to ensure "a necessary energy supply for the Commonwealth with a minimum impact on the environment at the lowest possible cost." In accordance with this mandate, the Department reviews the long range forecast of each gas utility to ensure that the forecast accurately projects the gas sendout requirements of the utility's market area. G.L. c. 164, § 69I. A forecast must reflect accurate and complete historical data, and reasonable statistical projection methods. G.L. c. 164, § 69I; 980 C.M.R. § 7.02 (9)(b). Such a forecast should provide a sound basis for resource planning decisions. Colonial Gas Company, D.P.U. 96-18, at 4 (1996); Bay State Gas Company, D.P.U. 93-129, at 5 (1996); Holyoke Gas and Electric Department, D.P.U. 93-191, at 2 (1996); Berkshire Gas Company, 16 DOMSC 53, at 56 (1987) ("1987 Berkshire Gas Decision").

In its review of a forecast, the Department determines if a projection method is reasonable based on whether the methodology is: (a) reviewable, that is, contains enough information to allow a full understanding of the forecast methodology; (b) appropriate, that is, technically suitable to the size and nature of the particular gas company; and (c) reliable, that is, provides a measure of confidence that the gas company's assumptions, judgments, and data will forecast what is most likely to occur. D.P.U. 96-18, at 5; D.P.U. 93-129, at 5; D.P.U. 93-191, at 2; Haverhill Gas Company, 8 DOMSC 48, at 50-51 (1982). Specifically, the Department examines a gas company's: (1) planning standards, including its weather data; (2) forecast method, including the forecast results; and (3) derivation and results of its design

and normal sendout forecasts. <u>See</u> D.P.U. 93-129, at 5-6; <u>see also Boston Gas Company</u>, D.P.U. 94-109 (Phase I), at 9 (1996). As part of the review of the forecast, the Department also examines the company's scenario analysis, which is used for evaluating the flexibility of the company's planning process, including any cold-snap analysis<sup>1</sup> and sensitivity analysis. <u>Boston Gas Company</u>, 25 DOMSC 116, at 200 (1992) ("<u>1992 Boston Gas Decision</u>"); <u>see</u> D.P.U. 93-129, at 23-25 and D.P.U. 94-109 (Phase I), at 61-66.

#### B. Planning Standards

The first element of the Department's forecast review is an assessment of a company's planning standards to determine if they are reviewable, appropriate and reliable. A company's planning standards are used as a basis for projecting its sendout forecast, which is then used to ascertain the adequacy and cost of a company's supply plan.

To ascertain the adequacy of a company's forecast, the Department initially conducts a review of the company's weather data. Then, the Department focuses on the planning standards themselves, <u>i.e.</u>, how the company arrived at its (1) normal year, (2) design year, (3) design day and (4) cold snap standards.

In reviewing adequacy, the Department first examines whether the company's base case is adequate to meet its projected normal year, design year, design day and cold snap firm sendout requirements. If so, the Department reviews whether the company's plan is adequate to meet its sendout requirements if certain supplies become unavailable. If the supplies are not

A cold-snap is a prolonged series of days at or near design conditions. <u>Colonial Gas Company</u>, D.P.U. 93-13, at 66 (1995); <u>1992 Boston Gas Decision</u> at 217; <u>Commonwealth Gas</u>, 17 DOMSC 71, at 137 (1998) ("1998 Commonwealth Gas Decision").

found to be adequate under the base case and contingency plans, then the company must establish that it has an action plan to obtain the supplies required to meet the projected firm sendout requirements. See Colonial Gas Company, D.P.U. 93-13, at 62 (1995); 1992 Boston Gas Decision at 212-213; 1987 Berkshire Gas Decision at 76.

# 1. Weather Data

# a. <u>Description</u>

\_\_\_\_\_The Company acquires its effective degree day data ("EDD") for each of the service areas from Meteorlogix<sup>2</sup> (Exh. BSG-1, at 20). The Company used 35 years of historical data to develop its design and normal weather standards (Exh. BSG-1, at 29).

# b. Analysis and Findings

In its previous filing, Bay State used 31 years of weather data which it procured from Weather Services Corporation ("WSC").<sup>3</sup> In the instant filing, the Company procured its weather data from the successor to WSC, Meterologix. In D.T.E. 98-86, at 4-5, the Department noted that the larger database would likely lead to more accurate forecasting. The Department, therefore, finds that the weather database used by Bay State is appropriate, reviewable, and reliable.

Formerly known as Weather Services Corporation.

The Department has approved the use of WSC weather databases in several Forecast and Supply Plans. <u>See D.T.E. 98-86, Colonial Gas Company D.P.U. 96-18 (1998), Commonwealth Gas Company D.T.E./D.P.U. 96-1117 (2000).</u>

# 2. <u>Normal and Design Standards</u>

#### a. Normal Year Standard

The Company calculates the mean number of EDDs in each month for each division using the 35 year period from November 1967 through March 2002 (Exh. BSG-1, at 29). The mean monthly EDDs are summed by division to arrive at the normal year EDDs (<u>id.</u>).

# b. Design Day and Design Year Standard

The Company continues to use the 1-in-25 year standard approved in D.P.U. 93-129, and D.T.E. 98-86 for design conditions (Exh. BSG-1, at 29). The Company claims that the cost benefit ratio of using a 1 in 25 year standard, has not changed, since Bay State's approach to system improvements had not changed since the Company 's filing in D.P.U. 93-129 (id.). The Company uses statistical analysis to derive its design day and design year standards (id.). In particular, to develop its design day standard, Bay State uses weather data from the 1967-2002 period to calculate a normal or mean coldest day (id. at 29-30). The Company uses t-distribution to formulate the probability of occurrence by the selection of the appropriate t-statistic for a 1 in 25 year design day standard (id. at 30). The t-statistic is then multiplied by the sample standard deviation, which is then added to the mean coldest day to derive the degree day levels (id). Similarly, the Company applies the same methodology to derive its design year standard (id.).

#### c. Cold Snap Analysis

The Company's analysis uses a 24-day period of January 6, 1982 through January 29, 1982 (1304 EDDs Brockton; 1292 EDDs Springfield and Lawrence) with a daily mean for this period being approximately 54-55 EDD for the analysis period (Exh BSG-1, at 31). The

Department has previously found this period reasonable. D.P.U. 93-129 at 25. Therefore, the Department finds that the Company's cold-snap weather assumptions are reviewable, appropriate, and reliable.

# d. Analysis and Findings

The Department reviews design criteria to ensure that there is a reasonable relationship between forecasted and actual conditions. See Gas Generic Order, 14 DOMSC 95, at 97 (1986). Specifically, the Department evaluates how and why a company selects particular design weather criteria and the effect that the design standard has on the reliability of a company's forecast and the cost of its supply plan. Id. at 96-97, 104-105.

In D.T.E. 98-86, the Department approved Bay State's design day and design year standards. The Department accepts the Company's argument that the conditions leading to approval of the Company's design standards have not changed since the Company's last forecast and supply plan, and finds that the Company's design day and design year standards are reviewable, appropriate, and reliable.

In its next filing, however, if the Company wishes to use the same standards and assumptions, Bay State is directed to support its assertion that the factors affecting its selection of design criteria have not changed since its 1993 filing.

# C. Forecasting Methods

#### 1. Residential, Commercial and Industrial Forecast

## a. <u>Description</u>

Bay State used both times series and econometric models to derive its requirements forecast as the Company did in its previous long-range forecast and supply plan, Bay State

Gas, D.T.E. 98 - 86 (2000) (Exh. BSG-1, at 20). In the present filing, the Company made the following changes to the methods used to specify the forecasting models: (1) the rate class-specific commercial and industrial ("C&I") models in each division have been replaced with a single model in each division<sup>4</sup>, (2) custom economic data have been replaced with data for the standard metropolitan areas served by Bay State, (3) the weighting of the results for the time series and econometric models is based on a statistical analysis<sup>5</sup>, (4) the forecast models were corrected for serial autocorrelation<sup>6</sup>, and (5) the forecast models rely on historical company data that does not reflect the historical impact of demand-side management ("DSM") (Exh. BSG-1, at 20-21).

Bay State forecasted the "number of meters" and "use per meter" for the residential rate class and the "number of meters" and "total use" for the C&I rate class (Exh. BSG-1, at 21). The total throughput forecast for residential was calculated as the product of two separate forecasts: number of meters and use per meter (id. at 23). The Company derived forecast results for each of its three divisions: Brockton, Springfield, and Lawrence (id. at 21). Bay State used quarterly data between 1983 and 2002 for the number of active

The Company states that aggregating the C&I classes simplifies the analysis by avoiding the data issues created by rate reclassification and rate restructuring such as discrete shifts in meter counts and usage in the historical series (Exh. BSG-1, at 21-22).

Rather than assume an equal weighting of each method to derive the forecast, a statistical method is used to determine the relative weighting of each model that provides the best overall predictive value (Exh. BSG-1, at 24).

In D.T.E. 98-86, the Department directed Bay State to provide forecasts using a stronger statistical analysis. The Company has done this by modifying its econometrics models to include a variable that corrects for serial correlation, thereby improving the statistical measures of the forecast results (Exh. BSG-1, at 5).

meters and MMBtu sales (<u>id.</u> at 19). Additionally, Bay State purchased actual and forecasted values of economic and demographic variables from DRI/McGraw-Hill (<u>id.</u> at 20).

The Company combined the forecasts of the time-series and econometric methods and specified a new regression model in which the explanatory variables are the backcast values of each forecast method for the historical period and the dependable variable is the actual values (Exh. BSG-1, at 24). The estimates of the regression become the weights for each forecast method (id.). Bay State indicated that, for the most part, the time series models received greater emphasis in the determination of the forecast than did the econometric models (id. at 24-25).

Bay State's forecast model results were presented under three scenarios: base case, high and low (Exh. BSG-1, at 25). The Company stated that the high throughput scenario of 1.7 percent is based on the average annual historical growth for the years 1995-96 through 2000-01, excluding 1999-2000 (id.). The low case is assumed to have no growth (id.). Bay State claimed that over the five-year forecast period, the base case throughput is estimated to increase by approximately 2.7 million MMBtu, for an average annual growth rate of 1.1 percent (id. at 27). The Company projects that the number of meters will increase by approximately 8,900, for an average annual growth rate of .81 percent (id.). Bay State

Bay State indicates that the year 1999-2000 is excluded because it is an outlier having unusually high growth (Exh. BSG-1, at 25). The Company's winter sendout in 1999-2000 increased 26.25 percent over its winter sendout of the previous year (Exh. BSG-III-15).

The Company states that it has not experienced zero net growth for a five-year period so that zero is a conservative lower bound to the forecast (Exh. BSG-1, at 25).

indicates that each division's forecast is similar in terms of annual growth although the Brockton division shows slightly higher annual growth, on average (<u>id.</u>).

Bay State developed forecast models based on historical data exclusive of estimated DSM reductions (Exh. BSG-1, at 25). The Company indicates that the adjustment to remove estimated DSM savings is performed over heating sales for heat-sensitive DSM measures and over annual sales for non-heat sensitive DSM measures (<u>id.</u> at 19-20). Lastly, the monthly customer counts and usage data series are translated into quarterly data for purposes of developing forecasting models (<u>id.</u> at 20). Consequently, prior to developing resource plans, the historical and expected future DSM savings must be added to the projected forecast (<u>id.</u> at 25). Bay State indicates that its estimated DSM savings<sup>9</sup> were based on its existing approved market transformation programs in <u>Bay State Gas Company</u>, D.P.U. 96-98 (1997) and <u>Bay State Gas Company</u>, D.T.E. 01-27 (2001) (Exh. DTE 1-1).

Bay State states that each of the models was evaluated for explanatory power with R-squared, significant t-values, and serial autocorrelation (Exh. DTE 1-13). For the combined model specification, the average R-squared was 0.96 for the Springfield division's models; 0.96 for the Brockton division's models; and 0.94 for the Lawrence division's models (Exh. BSG-III-3). As a general rule, the Company uses a t-statistic of two or more to evaluate the statistical significance of the independent variables (Exh. DTE 1-13). The Company uses the Durbin-Watson statistic to test for first-order serial autocorrelation in its econometric models (Exh. BSG-1, at 20). The models were corrected by serial autocorrelation using an

Bay State's estimated annual DSM savings range from 2,711,738 MMBtu in 2002-2003 to 3,581,933 MMBtu in 2006-2007 (Exhs. DTE 1-1; BSG-IV-4).

autoregressive function whenever the Durbin-Watson statistics seemed unreasonable (Exhs. DTE 1-10; DTE 1-13; DTE 1-19).

Further, the Company states that it uses the forecast comparisons with actual normal sales and meter data from 1998 to 2002 to evaluate the predictive ability of the forecast model (Exh. DTE 1-25). Bay State affirms that the combined model shows the smallest error in the backcast compared with the time series and the econometric backcasts (<u>id.</u>). The forecast error ranges from .69 percent in 2000 to 4.37 percent in 2002 (<u>id.</u>). The Company states that the year 2002 appears to be anomalous, probably due to warmer than normal weather (Exh. DTE 1-9).

## b. Analysis and Findings

The forecast models developed by Bay State incorporate sufficient detail to ensure reasonable results for planning purposes. The Company: (1) developed forecasts for each of the three operating division of the Company; (2) used a theoretically well-founded forecasting technique using demographic and economic variables that were specific to the metropolitan areas served by the Company; (3) corrected the econometric equations for serial autocorrelation using an appropriate methodology; and (4) analyzed the predictive ability of its forecast model.

The Department finds that the Company has sufficiently documented its methodology for the demand forecast. The Company developed its forecast based on time series and econometric models that are suitable for the size and the nature of the Company. Additionally, the Department notes that both the time series and econometric methods employed by the Company are proven techniques and used extensively in the industry by local distribution

companies. Further, the Department finds that the total forecast load is within an acceptable level of confidence. Therefore, the Department finds that the forecast developed by Bay State and the data used by the Company in preparing the forecast are reviewable, appropriate, and reliable.

# 2. <u>Transportation Forecast</u>

# a. <u>Description</u>

In D.T.E. 98-86 at 12, the Department directed the Company to develop a more formal framework for its migration forecast and to justify fully its assumptions as part of its next forecast and supply plan. Bay State indicates that third-party gas supply service has shown little growth in non-weather normalized throughput or number of meters since shortly after the implementation of full unbundling under mandatory capacity assignment in November 2000 (Exh. BSG-1, at 28). Specifically, the number of active meters has stayed at or a little below 6,000 since that date (<u>id.</u>). In addition, the Company states that the number of reverse migration customers<sup>10</sup> has also remained flat since early 2001 (<u>id.</u>). Further, the Company states that, based on the current levels of supplier activity and associated financial issues for competitive suppliers<sup>11</sup>, there is no indication that there will be any measurable change in the

According to the Company, a majority of these reverse migration customers once participated in the Pioneer Valley Customer Choice Program (Exh. BSG-1, at 28). That Program started on November 1, 1996 and ended on November 1, 2000, when full customer choice was implemented (Tr. at 99). Approximately 22,000 former transportation customers have returned to bundled sales service (Exh. BSG-1, at 28).

Bay State indicated that the financial pressures affecting competitive suppliers include restricted access to capital to fund operations, and tightening of credit requirements by counter-parties with whom suppliers must deal to serve their customers. (Exh. DTE 1-29).

situation during the forecast period (<u>id.</u>). Therefore, for the purpose of developing its resource plan, the Company has made the assumption that there will be no significant change in current third-party supply service (id.).

The Company used actual historical grandfathered <sup>12</sup> transportation load <sup>13</sup> and assumed that growth will occur in proportion to the overall growth in each division (Exh. BSG-1, at 28). The process used to derive the forecast of non-grandfathered C&I firm transportation load is performed in two steps: first, rate class level share factors <sup>14</sup> were applied to the forecast of total C&I firm load, this produced a rate class level C&I firm transportation forecast; second, actual grandfathered C&I firm transportation load was subtracted from the total C&I firm transportation load forecast (Exh. DTE 1-30). The difference is the forecast of non-grandfathered firm transportation (id.). <sup>15</sup>

# b. <u>Analysis and Findings</u>

In Bay State's most recently approved forecast and supply plan, the Department directed Bay State, in its next filing, to develop a modeling framework for its migration

A grandfathered customer is one who is not subject to mandatory capacity assignment (Tr. at 95).

The actual grandfathered transportation load is taken from the period November 2000 through October 2001 (RR-DTE-19).

According to the Company, rate class share factors were derived from the actual historical usage by rate class and those were the basis for constructing the shares; the factors are assumed constant over the forecast period (Tr. at 96).

Over the forecast period, Bay State's non-grandfathered transportation forecast projected a 26.15 percent increase (1,062,038 MMBtu) in the base case (Exh. BSG-III-4); a 38.42 percent increase (1,560,052 MMBtu) in the high case (Exh. BSG-III-5); and no increase in the low case scenario (Exh. BSG-III-6).

forecast and to justify fully its assumptions. D.T.E. 98-86 at 12. Bay State indicated that it expects no significant change in current third-party supply service (BSG-1, at 28). Based on the information available to the Company at the time Bay State prepared this filing, the Department finds that Bay State's method for determining its transportation volumes and the number of firm customers is reviewable, reliable and appropriate.

## III. ANALYSIS OF THE SUPPLY PLAN

#### A. Standard of Review

The Department is required to ensure "a necessary energy supply for the Commonwealth with a minimum impact on the environment at the lowest possible cost." G.L. c. 164, § 69I. In fulfilling this mandate, the Department reviews a gas company's supply planning process and the two major aspects of every utility's supply plan -- adequacy and cost. Commonwealth Gas Company, D.P.U. 92-159, at 53 (1995); Colonial Gas Company, D.P.U. 93-13, at 49-50 (1995); 1992 Boston Gas Decision, at 201.

The Department reviews a gas company's five-year supply plan to determine whether the plan is adequate to meet projected normal-year, design-year, design-day, and cold-snap firm sendout requirements. The Department's review of reliability, another necessary element of a gas company's supply plan, is included in the Department's consideration of adequacy.

See <u>Fall River Gas</u>, D.T.E. 99-26, at 18 (2000); <u>Colonial Gas Company</u>, D.P.U. 93-13, at 50,

G.L. c. 164, § 69I also directs the Department to balance cost considerations with environmental impacts in ensuring that the Commonwealth has a necessary supply of energy. Colonial Gas Company, D.P.U. 96-18, at 31; Commonwealth Gas Company, D.P.U. 92-159, at 53; Colonial Gas Company, D.P.U. 93-13 at 50.

n.22; 1992 Boston Gas Decision, 25 DOMSC at 201, n.87. In order to establish adequacy, a gas company must demonstrate that it has an identified set of resources that meet its projected sendout under a reasonable range of contingencies. If a company cannot establish that it has an identified set of resources which meet sendout requirements under a reasonable set of contingencies, the company must then demonstrate that it has an action plan which meets projected sendout in the event that the identified resources will not be available when expected. D.P.U. 96-18, at 31; D.P.U. 92-159, at 54; D.P.U. 93-13, at 50.

In its review of a gas company's supply plan, the Department reviews a company's overall supply planning process. An appropriate supply planning process is essential to the development of an adequate, low-cost, and low environmental impact resource plan. Pursuant to this standard, a gas company must establish that its supply planning process enables it to (1) identify and evaluate a full range of supply options, and (2) compare all options -- including Conservation and Load Management ("C&LM") -- on an equal footing. Colonial Gas

Company, D.P.U. 96-18, at 31; Commonwealth Gas Company, D.P.U. 92-159, at 54;

Colonial Gas Company, D.P.U. 93-13, at 51; 1992 Boston Gas Decision at 202.

Finally, the Department reviews whether a gas company's five-year supply plan minimizes cost. A least-cost supply plan is one that minimizes costs subject to trade-offs with adequacy and environmental impact. Commonwealth Gas Company, D.P.U. 92-159, at 55; Colonial Gas Company, D.P.U. 93-13, at 51-52; 1992 Boston Gas Decision at 203. Here, a gas company must establish that application of its supply planning process has resulted in the addition of resource options that contribute to a least-cost plan.

# B. <u>Base Case Supply Plan</u>

In this section, the Department reviews the Company's supply plan and identifies elements which represent potential contingencies affecting the adequacy of supply or which potentially affect the cost of the supply plan. The Department reviews the adequacy of the Company's supply plan, the Company's supply planning process, and the cost of the Company's supply plan.

## 1. Gas Supplies

Bay State's commodity portfolio is made up of approximately 40 supply, transportation and storage contracts (Exh. BSG-1, at 44). The Company has three separate service territories: Brockton, Springfield and Lawrence (id. at 44-45). For planning purposes, Bay State separates the Brockton service area from Springfield and Lawrence because Brockton is primarily served by Algonquin Gas Transmission, whereas Springfield and Lawrence are primarily served by Tennessee Gas Pipeline (id. at 45). The Company notes that supply transfers between the divisions are possible via a physical interconnect from Tennessee Gas Pipeline that allows up to 7,500 Dth/day to be transferred to the Brockton service territory (id.). The Company also notes that Bay State is able to exchange volumes on an as-needed basis with Northern Utilities, Inc. allowing the Brockton service territory to receive up to 20,000 Dth on certain days (id.).

#### 2. Storage Facilities

Bay State has separate off-system storage facilities serving the Brockton, Springfield and Lawrence service territories (Exh. BSG-1, at 46). The Brockton service territory relies on storage from facilities located in western Pennsylvania and western New York through two

contracts with Texas Eastern and one with Dominion (id.). The combined Springfield/Lawrence service area has access to storage facilities located in western Pennsylvania and Michigan through a storage contract with Tennessee and a storage/exchange contract with CoEnergy Trading Company (id.). The Company also states that Bay State contracts for a 90-day storage service for the Springfield/Lawrence service area on a year-to-year basis, depending on forecasted needs (id.).

#### 3. Local Production

The Company operates several LNG and propane facilities serving each service territory (Exh. BSG-1, at 46). The Brockton service territory is served by LNG facilities located in Easton and Marshfield, with respective total capacities of 846,861 and 8,927 MMBtus and overall vaporization maximum daily withdrawal quantity ("MDWQ") of 53,000 MMBtus (Exh. BSG-IV-3). The Company's propane facility serving this territory, located in Meadowlane, has 79,593 MMBtus in total capacity and a vaporization MDWQ of 21,000 MMBtus (<u>id.</u>).

Bay State's Springfield/Lawrence service area is served by LNG facilities located in Ludlow and Lawrence, with respective total capacities of 1,098,287 and 13,857 MMBtus and a combined vaporization MDWQ of 66,000 MMBtus (Exh. BSG-IV-3). The propane facilities serving this service area are located in Lawrence, North Hampton and West Springfield, with respective total capacities of 14,726, 24,544 and 26,531 MMBtus and an overall valorization MDWQ of 39,000 MMBtus (id.).

# 4. <u>Demand-Side Management and Market Transformation</u>

The Company offers a number of DSM programs that were adopted as part of a settlement agreement approved by the Department in D.T.E. 01-27 and are scheduled to be reevaluated at the end of the pre-approval period on April 30, 2004 (Exh. BSG-1, at 49). The Company notes that while company-specific programs are offered, many of Bay State's DSM programs have been designed and implemented on a statewide basis along with other Massachusetts LDCs participating in the GasNetworks collaborative (id.). The programs offered by Bay State include residential non-low income, residential low income, multi-family and commercial and industrial programs encompassing a range of individual program measures (id.). The Company also claims it supports training provided through a building operator certification program, co-sponsors code training events, and participates in other educational activities through involvement with trade and industry-related organizations (id. at 50).

# C. Adequacy of the Supply Plan

In reviewing the adequacy of a gas company's five-year supply plan, the Department first examines whether the company's base-case resource plan is adequate to meet its projected normal year, design year, design day, and cold-snap firm sendout requirements and, if so, whether the company's plan is adequate to meet its sendout requirements if certain supplies become unavailable. D.P.U. 93-13, at 62; 1992 Boston Gas Decision, at 212-213; 1987

Berkshire Decision, at 76. If the supply plan is not adequate under the base-case resource plan or not adequate under the contingency of existing or new supplies becoming available, then the company must establish that it has an action plan that will ensure that supplies will be obtained

to meet its projected firm sendout requirements. D.P.U. 93-13, at 62; <u>1992 Boston Gas</u> <u>Decision</u>, at 212-213; <u>1987 Berkshire Decision</u>, at 76.

#### 1. Normal and Design Year Adequacy

#### a. Description

Bay State submitted its supply plans for meeting its forecasted normal year and design year sendout requirements throughout the forecast period (Exhs. BSG-1; BSG-IV-4; BSG-IV-7). The Company explained that it plans to meet its normal year and design year heating season needs by using a combination of several existing supply, underground storage, and peaking resource contracts (Exh. BSG-1, at 55). Bay State forecasts that normal year firm sendout requirements for the base case will increase from 28,202,900 MMBtu in the 2002-2003 heating season to 30,300,373 MMBtu in the 2006-2007 heating season. Bay State forecasts that design year firm sendout requirements for the base case will increase from 30,802,793 MMBtu in the 2002-2003 heating season to 33,194,663 MMBtu in the 2006-2007 heating season (Exhs. BSG-1, at 55; BSG-IV-4; BSG-IV-7).

## b. Analysis and Findings

As noted previously, the Department has found Bay State's normal year forecast to be reviewable, reliable, and appropriate. The Department also found the Company's design year forecast to be reviewable, appropriate, and reliable. Based on the Company's sendout and supply tables, the Company has demonstrated that it has adequate supplies through various sources to meet its forecast sendout requirements under normal and design year throughout the forecast period. Accordingly, the Department finds that Bay State has established that it has

adequate supplies to meet its normal year and design year forecast sendout requirements throughout the forecast period.

# 2. <u>Design Day Adequacy</u>

## a. <u>Description</u>

The Company explains that it has adequate capacity to serve the design day requirements throughout the forecast period (Exh. BSG-1, at 55). Bay State plans to meet its design day needs through existing firm pipeline supplies, underground storage and peaking LNG and storage injections (id.). Bay State forecasts that design day firm sendout requirements will increase from 411,870 MMBtu in the 2002-2003 heating season to 436,460 MMBtu in the 2006-2007 heating season (Exhs. BSG-1, at 55; BSG-IV-10).

#### b. Positions of the Parties

# i. <u>DOER</u>

DOER argues that Bay State lacks sufficient firm design-day capacity to assure supply to its Brockton division (DOER Brief at 10). DOER points out that the Company does not have firm contracts for 9,269 MMBtu of its storage supply to Brockton (<u>id.</u> at 11). Therefore, DOER argues that it is not an appropriate planning measure for the Company to rely on this capacity on the design-day (<u>id.</u>).

# ii. The Company

Bay State notes that it had a proposed agreement with Algonquin Gas Transmission Company to acquire capacity on its new Hubline project (Company Brief at 20). The Company argues that, with this new capacity, it has identified an appropriate set of alternatives to meet the anticipated capacity for the Brockton division (<u>id.</u> at 21).

# c. Analysis and Findings

As noted previously, the Department finds the design day forecast reviewable, appropriate, and reliable. Further, the Company's proposed agreement with Algonquin has since been approved by the Department. Bay State Gas Company, D.T.E. 03-37 (2003). Based on this subsidiary finding and the requirements and resource schedules, the Department finds that Bay State has demonstrated that it has adequate supplies and facilities to meet forecasted sendout requirements under the design day conditions throughout the forecast period.

# 3. <u>Cold-Snap Adequacy</u>

# a. <u>Description</u>

Bay State conducted a cold-snap analysis using its historical coldest 24-day period with a daily mean of 54 to 55 effective degree days ("EDD") (Exh. BSG-1, at 30). Bay Sate explained that in order to meet this extended period of peak demand, it could dispatch its full portfolio of pipeline supplies, storage volumes, LNG and propane at its production facilities (id. at 55). The Company's filing demonstrated that the existing and proposed supply resources could satisfy such a contingency (Exh. BSG-1; Schedule BSG-IV-9).

#### b. Analysis and Findings

Based on the Company's analysis, the Department finds that Bay State has demonstrated that it has adequate supplies to meet its firm sendout requirements during a prolonged cold-snap.

# 4. Conclusions on the Adequacy of the Supply Plan

The Department finds that: (1) the normal year and design year supply plans are adequate to meet the Company's forecasted sendout requirements throughout the forecast period; (2) the Company has demonstrated that it has adequate supplies to meet forecasted sendout requirements under design day conditions throughout the forecast period; and (3) the Company has demonstrated that it has adequate supplies to meet its firm sendout requirements during a prolonged cold-snap. Based on these subsidiary findings, the Department finds that Bay State has identified adequate resources to meet its firm sendout requirements throughout the forecast period.

# D. <u>Supply Planning Process</u>

# 1. <u>Standard of Review</u>

The Department has determined that a supply planning process is critical in enabling a utility company to formulate a resource plan that achieves an adequate, least-cost and low environmental impact supply for its customers. Berkshire Gas Company, D.P.U. 94-14, at 36 (1994); Colonial Gas Company, D.P.U. 93-13, at 70 (1995); 1992 Boston Gas Decision, at 223; Boston Gas Company, 19 DOMSC 332, at 388 (1990) ("1990 Boston Gas Decision"). The Department has noted that an appropriate supply planning process provides a gas company with an organized method of analyzing options, making decisions, and reevaluating decisions in light of changed circumstances. D.P.U. 94-14, at 36; D.P.U. 93-13, at 70; 1992 Boston Gas Decision, at 223; 1990 Boston Gas Decision, at 388. For the Department to determine that a gas company's supply planning process is appropriate, the process must be fully documented. D.P.U. 93-13, at 70; 1992 Boston Gas Decision, at 223.

The Department's review of a gas company's process for identifying and evaluating resources focuses on whether the company: (1) has a process for compiling a comprehensive array of resource options -- including pipeline supplies, supplemental supplies, DSM, and other resources; (2) has established appropriate criteria for screening and comparing resources within a particular supply category; (3) has a mechanism in place for comparing all resources, including DSM, on an equal basis, i.e., across resource categories, and; (4) has a process that as a whole enables the company to achieve an adequate, least-cost, and low environmental impact supply plan. Fitchburg Gas and Electric Light Company, D.P.U. 94-140, at 37 (1996); Colonial Gas Company, D.P.U. 93-13, at 70 (1995); 1992 Boston Gas Decision, at 224; 1990 Boston Gas Decision, at 54-55.

The Department reviews a gas company's five-year supply plan to determine whether it minimizes cost, subject to trade-offs with adequacy and environmental impact. Fitchburg Gas and Electric Light Company, D.P.U. 94-140, at 37 (1996); D.P.U. 93-13, at 88; 1992 Boston Gas Decision, at 236; 1987 Boston Gas Decision, at 214. A gas company must establish that the application of its supply planning process, including adequate consideration of DSM and consideration of all resource options on an equal basis, has resulted in the addition of resource options that contribute to a least-cost supply plan. D.P.U. 94-140, at 37; D.P.U. 93-13, at 83; 1992 Boston Gas Decision, at 233; Berkshire Gas Company, 14 DOMSC 107, at 115 (1986). As part of this review, the Department requires gas companies to show, at a minimum, that they have completed comprehensive cost studies comparing the costs of a reasonable range of practical supply alternatives prior to selection of major new resources for their supply plans. D.P.U. 94-140, at 37; D.P.U. 93-13, at 89; 1992 Boston Gas Decision at 236; 1986 Gas

Generic Order, at 100-102.

## 2. Identification and Evaluation of Resource Options

#### a. <u>Supply-Side Resources</u>

The Company asserts that the primary objective of Bay State's resource planning process is to acquire and manage resources in a manner that achieves a best-cost resource portfolio for its customers (Exh. BSG-1, at 34). The Company states that this overall portfolio objective is supported by a number of specific resource planning objectives: (1) reduce portfolio costs; (2) maintain portfolio reliability; (3) provide flexibility; and (4) acquire viable resources (id.). The Company states that its resource planning process employs analytic tools, including the SENDOUT cost optimization model and various assessment methods to perform long-range planning and to evaluate the individual resource decisions it must make (id.). The Company explains how non-cost resource evaluation is typically performed using spreadsheet-based assessment tools. The Company claims that Bay State's resource planning process is largely unchanged since its prior long-range forecast and supply plan, which was reviewed and approved by the Department in D.T.E. 98-86.

## b. <u>Demand Side Management</u>

The Department has expressed concern that in the past Bay State excluded DSM from its planning process. D.T.E. 98-86, at 28. The Company addresses these concerns by developing forecast models based on estimated historical data exclusive of estimated DSM reductions with the historical and expected future DSM savings added to the projected forecast prior to development of the resource plan (Exh. BSC-1 at 25). This projection by the Company is based upon the cost effectiveness of the DSM programs, which are in effect

through April 2004, and that these existing programs will be expected to continue through the duration of the five year forecast period (Exh. BSG-1, at 25).

#### c. <u>Scenario Analysis and Contingency Planning</u>

The Company states that in addition to the base case SENDOUT analyses, Bay State performed an analysis of resource requirements under high and low growth scenarios (Exh. BSG-1, at 54). The Company explains that a high growth forecast indicates an earlier need for a citygate service in the Brockton division as well as a small incremental peak day need for the second citygate alternative in the last year of the forecast (id.). The Company also notes that under the low growth scenario there is no need for citygate service in the Brockton division over the entire five-year planning period (id.). The Company claims that the incremental supplies to be delivered via the Hubline project to Brockton enable Bay State to delay its decision on whether to purchase the additional citygate services or other incremental resources identified in the high growth scenarios until the time of need draws closer (id.).

## d. Contingency Reserve

## i. Company Proposal

Bay State has identified two reliability issues which have arisen since the approval of its last forecast and supply plan, and that the Company claims are not fully addressed by the traditional supply planning process (Company Brief at 22). The Company contends that terrorist actions appear to pose a more significant threat to energy infrastructure since the events of September 11 (Tr. at 24). The second issue raised by the Company is the risk that so-called grandfathered transportation customers may migrate in significant numbers back to firm transportation service with the Company (Exh. DOER 2-2; Tr. at 14-16).

Because of these perceived emerging reliability issues, Bay State proposes to modify its planning process on a going-forward basis to include a ten percent reserve margin in its planning for January requirements (Exh. BSG-1, at 42). The Company believes that January is the appropriate month to use, because January encompasses both Bay State's design day and design cold-snap periods (id. at 43). Bay State indicates that the Company would likely reserve its LNG and propane assets to provide the necessary capacity to fulfill the ten percent contingency requirement (id.). Bay State explains that these assets serve the dual purpose of providing distribution system pressure support as well as providing a source of supply (id.). Bay State further explains that LNG and propane are preferable for this type of service because they are under the direct control of the Company, are local to the distribution system, and can be dispatched on a no-notice basis to satisfy changing demand requirements attributed to weather and/or upstream supply disruptions (id.). Finally, Bay State states that the ten percent contingency proposal would accomplish these Company objectives at an additional cost of less than one percent of the total portfolio cost (Exh. DOER 1-31).

#### ii. Positions of the Parties

#### (A). Attorney General

The Attorney General argues that the Company's ten percent contingency reserve proposal would burden customers who have never benefitted from competition by charging them for the capacity necessary to serve the customers who have long enjoyed the monetary benefits of competition (Attorney General Brief at 4). The Attorney General contends that the reserve proposal would shift costs from the grandfathered customers who left the LDC to be served by a competitive supplier, to those customers who have paid all along for the capacity

the Company has acquired to serve them now and into the future (<u>id.</u>). The Attorney General argues that the Department should deny the Company's request for a ten percent contingency reserve because it would be unfair to existing default service customers and contrary to the Department's guidelines for the transition to a competitive market as set forth in <u>Gas</u> <u>Unbundling</u>, D.T.E. 98-32-B (<u>id.</u> at 5).

The Attorney General also contends that the terms and conditions approved by the Department permit Bay State to reject customers that return to the LDC system without the capacity needed to serve them (Attorney General Brief at 5). The Attorney General notes that the terms and conditions state that the Company will provide default service to any returning customer up to the level of recallable capacity assigned to the customer's former supplier (id. citing, D.T.E. 98-32-D). The Attorney General suggests that the Department should direct the Company to comply with that provision in the terms and conditions (id. at 5).

As an alternative to the Company's proposed cost shifting, the Attorney General suggests that the Department could create a separate cost-of-gas adjustment ("CGA") applicable to returning grandfathered customers (id.). Under a separate CGA, the Attorney General suggests that the Company would charge the returning grandfathered customers for the actual costs to serve them (id.). The Attorney General argues that this alternative would be similar to the electricity default service rules for larger commercial customers set forth in Default Service, D.T.E. 02-40 (2003) (id.). The Attorney General contends that a separate CGA would produce a fairer result and would be more consistent with Department ratemaking principles and competitive transition guidelines than the Company's proposal to charge all customers (id. at 6).

Finally, the Attorney General suggests that the Department should open a proceeding to develop a comprehensive plan for retail natural gas competition in Massachusetts (Attorney General Brief at 6). The Attorney General argues that the energy market has not developed as originally envisioned (<u>id.</u>). The Attorney General further contends that the Department should develop comprehensive guidelines for resource and supply planning (<u>id.</u>). The Attorney General further submits that these guidelines should enhance the choices available to customers, so that the choices fit customers' needs and are tailored to the current realities of competition in the Massachusetts natural gas market (<u>id.</u>).

# (B). <u>Division of Energy Resources</u>

DOER argues that the contingency reserve proposal is inappropriate because it fails to meet Department standards for adequacy and cost (DOER Reply Brief at 3). DOER claims that the record indicates the probability of grandfathered customers returning to default service is significantly less than the Company perceives (id.). DOER states that the Company's proposal to create a ten percent capacity reserve (or additional 51,000 MMBtus per day for the 2003-2004 winter) is inappropriate given that the Company reports it has about 97,000 MMBtus of grandfathered design-day load on its system (id.). DOER argues that Bay State's forecast of a 50 percent chance of its grandfathered load returning is not supported by the record, especially in light of the fact that the Company's forecast indicates its metered customers are expected to remain on transportation service throughout the forecast period (id. at 4). DOER also contends that the uncertainties associated with grandfathered customers and world events is not a significant basis to impose the costs of an additional ten percent contingency reserve cost on all customers (DOER Brief at 7).

DOER contends that the Company's reserve proposal does not identify who must be served and what the actual needs are; lacks quantitative analysis; and offers no comparison of alternatives (DOER Brief at 5). DOER contends that the Company failed to make any connection between the reserve proposal and its concerns with war and terrorism or to respond to questions being examined by the North American Energy Standards Board considering creditworthiness (id. at 5-6).<sup>17</sup> DOER asserts that the Company's conclusions about the potential for suppliers exiting the retail market are unpersuasive (id. at 6). DOER also claims that, the Company witness, during the evidentiary hearing, directly contradicted the primary basis articulated for the reserve proposal in the Company's initial filing, when the witness stated that the Company was not planning on serving the grandfathered load (id. citing Tr. at 58).

DOER also questions why the Company failed to consider modifying its planning standards (DOER Brief at 8). DOER states that Bay State's one in twenty five year planning standard is less than what the Department has approved for other LDCs and DOER suggests that the Company consider increasing its planning standard before contemplating the untried planning approach of a contingency margin that represents a significant departure from Department precedent (<u>id.</u>).

DOER contends that Bay State's assertions concerning overall tightening of credit standards and forcing certain suppliers out of the system were unsupported at the hearing, as well as simplistic and, in large part, inaccurate (DOER Brief at 6).

# (C). The Company

Bay State argues that the threat of a terrorist attack on energy infrastructure targets has taken on a new reality post-September 11, 2001 (Tr. at 23). The Company points to the fact that a shipment of LNG to Distrigas was stopped for nearly two months after the terrorist attacks (Exh. BSG-1, at 42). While Bay State admits that the probability of any such future interruption is difficult to quantify, Bay State contends that prudent planning requires that it take such a contingency into consideration (Company Brief at 24).

Bay State indicates, in its forecast, that it serves a significant number of transportation customers who left firm default service before the Department established mandatory capacity release in the 1999 Gas Unbundling Order (Exh. BSG-1, at 40; Tr. at 14-16). These grandfathered customers did not take with them their pro-rata share of Bay State's capacity. Bay State indicates that the Company permitted its customers to leave firm default service prior to the Department's adoption of a mandatory capacity release policy in order to encourage competition (Exh. BSG-1, at 40). Bay State contends that if these grandfathered customers return to firm default service, Bay State would need to acquire new capacity to meet their needs (Tr. at 15).

Bay State contends that the risk of significant numbers of grandfathered customers returning to firm default service is now sufficiently great that the need must be addressed in Bay State's supply planning process (Exhs. BSG-1, at 40; BSG-Figure-IV-1). The Company explains that the trend in recent years is that migration back to firm service has significantly

exceeded migration to transportation (Exh. BSG-1, at 40; BSG-Figure-IV-1; Tr. at 25). <sup>18</sup> Bay State adds that AllEnergy has announced its intention to exit the market, which could lead to a further increase in migration back to firm service (Tr. at 19).

Bay State asserts that the ten percent contingency provides a hedge against both the risk of terrorist attack and customer migration back to firm service (Company Brief at 24).

According to Bay State, the Company would provide Bay State with the ability to serve more than half of all grandfathered customers assuming that they all returned to firm service simultaneously on the peak day (<u>id.</u>).

The Company argues that the proposed ten percent contingency reserve proposal is a necessary and cost-effective solution to meet the two new reliability issues which are not fully addressed by the traditional supply planning process. The Company believes it is obligated to serve customers that migrate back to firm default service, absent a change in the Department's current policy (id.). The Company also posits that a refusal by the Company to accept returning transportation customers would have an adverse effect on competition, because customers in the future may be reluctant to move to the competitive market if they believed that they would not be able to return to firm default service (id.).

The Company rejects DOER's argument that Bay State should change its design day standard instead of proposing the ten percent contingency reserve (<u>id.</u> at 25). The Company argues that the issue of whether or not the Company's design day standard is appropriate is

Although the Company has shown a large number of customers returning to sales service, it appears that the impact of such reverse migration on throughput was not proportionate (Exh. BSG-Figure-IV-I).

separate and distinct from the issue of whether the Company should plan to meet some portion of requirements for all firm customers, including grandfathered customers (Company Reply Brief at 1). The Company states that under the planning standard suggested by DOER, Bay State would procure additional resources to serve the same customers as under the current plan, and would not procure resources intended to meet the supply needs of grandfathered customers should they return to sales service or to meet the potential supply-related circumstances (id. at 2).

The Company also rejects DOER's suggestion that Bay State's estimates of potential reverse migration are not supported by the record (Company Reply Brief at 2). The Company claims that the ten years of retail migration experience cited by DOER does not provide a reliable prediction of future conditions given the many changes that have occurred in the marketplace recently (id.). Thus, the Company contends that a broader range of potential outcomes must be considered (id.).

## iii. Analysis and Findings

In its filing, Bay State has introduced a new concept, that of a ten percent contingency reserve. The reserve is proposed to address two issues: (1) the threat of terrorism against energy infrastructure; and (2) the possibility of grandfathered transportation customers migrating back to Bay State's firm sales service.

The Company has emphasized the cost effectiveness of the proposed reserve, and described its proposal as a hedge against both risks (Exh. BSG-1, at 42; Tr. at 24). However, the matters of terrorism and grandfathered customers returning to sales service are of differing nature and scope and, therefore, the Department will address these two issues separately.

First, concerning the threat of terrorism, the Company has failed to show whether the threat of a terrorist act is to the Company's distribution system or the upstream pipelines. It is important to differentiate between a terrorist threat to the Company's distribution system as opposed to the upstream pipeline system. In the event that a terrorist attack disables one or more pipelines serving Bay State, then the Company's contingency planning may provide some relief. However, in the event of a terrorist strike against Bay State's distribution system, it is highly unlikely that the ten percent contingency would be useful. Further, Bay State has failed to show that there is sufficient information available to indicate that a terrorist attack to the energy infrastructure (upstream or within the Company's distribution system) is likely or imminent.

Second, concerning the Company's position that Bay State is obligated to provide the resources necessary to accommodate grandfathered transportation customers returning to the Company's sales service, the Company's proposal is deficient in two points. First, the Company proposes to collect the costs of this contingency plan from its existing sales customers. In essence, the Company expects its current sales customers to pay the cost to ensure that future sales customers receive service. Second, despite Bay State's assertion to the contrary, the Department notes that LDCs are not required to serve customers if the addition of those new customers to the system would increase average costs. See Boston Gas Company, D.P.U. 88-67, at 282-283 (1989). Further, section 15.6 of the Company's current Terms and Conditions clearly states that:

The Company shall be under no obligation to provide Default Service to a Customer at a maximum daily level in excess of the total contractual quantity of recallable capacity assigned to a Supplier on behalf of said Customer. The

Company may elect to provide Default Service to such Customer <u>if</u>, and to the <u>extent that</u>, adequate system capacity and supplies are available and upon the same terms and subject to the same conditions as any new Customer seeking to take Default Service (emphasis added).

Thus, for the reasons stated above, the Department finds that the Company's justification for its contingency proposal is deficient. The Department notes that the contingency plan as proposed could lead to the unnecessary acquisition of additional resources to the financial detriment of Bay State's firm sales customers. The Department directs Bay State, to the extent that the Company has already begun acquiring commodity and/or capacity in relation to this proposal, to immediately shed these resources. Bay State is further directed to provide a status report no later than two months after issuance of this Order addressing its compliance with this directive.<sup>19</sup>

Regarding the Attorney General's recommendation that the Department create a separate CGA applicable to returning grandfathered customers, our denial of the ten percent contingency makes this recommendation unnecessary. Lastly, we address the Attorney General's contention that the Department should open a proceeding regarding natural gas competition in Massachusetts. While the Department is mindful of the concerns raised by the Attorney General on this point, this proceeding is not the proper forum in which to discuss them. The Department has opened a docket, D.T.E. 04-01, to address competition-related issues, and that may be a suitable venue for the Attorney General to voice these concerns. Finally, although the Attorney General suggests that the Department should develop guidelines

Because we find insufficient justification for the Company's proposed ten percent contingency reserve, it is unnecessary to address the Intervenor's other arguments against the proposal.

for resource and supply planning, the recommendation is a general statement, and the Attorney General does not support it by showing how the current forecast and supply process might be deficient in this area.

## 3. <u>Consideration of All Resources on an Equal Basis</u>

## a. <u>Description</u>

The Company uses SENDOUT, which simulates the utilization of all resources in the portfolio under design and normal weather patterns and is able to select the lowest cost mix of resources (Exh. BSG-1, at 37). The Company also uses this model to assess DSM resources, avoided energy costs, and to ensure that supply and DSM resources are evaluated consistently to yield an overall least cost resource plan (Exh. BSG-1 at 37).

# b. <u>Analysis and Findings</u>

The Department has held that in order for a gas company's planning process to minimize cost, that process must adequately consider alternative resource additions, including DSM options, on an equal basis. D.P.U. 93-13, at 83; Boston Gas Company, 25 DOMSC at 233; Berkshire Gas Company, 15 DOMSC at 115. The record shows that the Company has a method to evaluate resources within a single resource group, and that it evaluates options across resource groups using industry-accepted standards. Accordingly, the Department finds that Bay State has incorporated both supply-side and demand-side options in its resource mix and has compared all resources, including DSM, on an equal basis.

## 4. <u>Conclusions on the Supply Planning Process</u>

The Department has found that the Company has: (1) formulated an appropriate process to identify a comprehensive array of supply options, and has developed appropriate

criteria for screening and comparing resources; (2) formulated an appropriate process for identifying a comprehensive array of DSM options, and has developed appropriate criteria for screening and comparing DSM resources; and (3) incorporated both supply-side and demand-side options in its resource mix, and it has compared all resources, including DSM, on an equal basis. The Department finds that the Company has developed an appropriate supply planning process.

# E. <u>Conclusions on the Supply Plan</u>

The Department has also found that the Company has established that its normal year, design year, design day, and cold-snap supply plans are adequate to meet the Company's forecast sendout requirements throughout the forecast period. In addition, the Department has found that the Company has developed: (1) appropriate criteria for screening and comparing supply-side resources and demand-side resources, and (2) a mechanism to undertake the comparison of resources on an equal basis. Accordingly, the Department approves Bay State's supply plan for the years 2002/2003 through 2006/2007, subject to the conclusions stated herein.

# IV. <u>ORDER</u>

Accordingly, after due notice, hearing and consideration, it is

ORDERED: That Bay State Gas Company's petition for approval of its long-range forecast and supply plan be and hereby is approved; and it is

<u>FURTHER ORDERED</u>: That Bay State Gas Company follow all directives contained herein.

By Order of the Department,
Paul G. Afonso, Chairman
James Connelly, Commissioner
W. Robert Keating, Commissioner
Eugene J. Sullivan, Jr., Commissioner
Deirdre K. Manning, Commissioner

Appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part.

Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such time as the Commission may allow upon request filed prior to the expiration of twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. (Sec. 5, Chapter 25, G.L. Ter. Ed., as most recently amended by Chapter 485 of the Acts of 1971).